APPLICATIONS

Medical isotope separation

Pump lasers for scientific

Industrial laser materials

processing

research

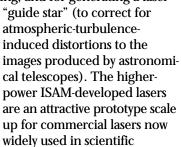
High-Average-Power Frequency-Doubled Nd:YAG Lasers

Provides state-of-the-art, high-average-power, short-pulse visible lasers

The Isotope Separation and **Advanced Manufacturing** (ISAM) Technologies program at LLNL has developed pulsed Nd:YAG lasers that can deliver average powers approaching 100 watts at the 532-nm, second-harmonic wavelength. These lasers can operate at high repetition rates, ranging from one kilohertz to several tens of kilohertz. They are highpower-lasers used for a wide range of industrial materials processing applications. In addition to higher output power, our ISAM Nd:YAG laser can

generate considerably shorter pulses than other lasers that are currently available.

The ISAM program uses its Nd:YAG lasers to pump dye lasers and titanium:sapphire lasers currently being used for isotope separation, materials processing, and for generating a laser



research as pump lasers for ultra-short pulse titanium:sapphire amplifiers.



LLNL's high-average-power frequency-doubled Nd:YAG laser.

Availability: The Laboratory is actively seeking industrial partners to work with us in further developing and commercializing this laser technology as well as finding additional industrial utilizations.

Contacts

Gaylen Erbert Phone: (510) 422-9986 Fax: (510) 423-3143 E-mail: erbert2@llnl.gov Mail code: L-463 Isaac Bass Phone: (510) 423-8389 Fax: (510) 423-3143 E-mail: bass1@llnl.gov Mail code: L-462